

WHAT IS CLAIMED IS:

- 1 1. A method comprising:
 - 2 receiving status information concerning a size and
 - 3 location of a data packet;
 - 4 receiving statistical information concerning a bus
 - 5 condition; and
 - 6 storing the status information and the statistical
 - 7 information on a storage device using a single write
 - 8 procedure.
- 1 2. The method of claim 1 further comprising receiving the
- 2 data packets from the data bus.
- 1 3. The method of claim 1 further comprising monitoring the
- 2 status of the bus and generating the statistical information.
- 1 4. The method of claim 1 further comprising generating
- 2 control information which specifies the storage location for
- 3 each data packet.
- 1 5. The method of claim 4 further comprising storing the
- 2 control information on the storage device.
- 1 6. The method of claim 5 further comprising storing each
- 2 data packet on the storage device at the storage location
- 3 specified by the control information.

1 7. The method of claim 5 further comprising retrieving the
2 data packets stored on the storage device.

1 8. The method of claim 5 further comprising retrieving the
2 status information stored on the storage device.

1 9. The method of claim 1 further comprising monitoring the
2 data packets, generating the status information about the data
3 packets, and providing the status information to the method.

1 10. A statistics reporting process comprising:
2 a status information process for receiving status
3 information concerning a data packet;
4 a statistics information process for receiving
5 statistical information concerning a bus condition; and
6 a unified write process for storing said status
7 information and said statistical information on a storage
8 device using a single write procedure.

1 11. The statistics reporting process of claim 10 further
2 comprising an Input/Output (I/O) controller connected to a
3 data bus; wherein said I/O controller receives from said data
4 bus said data packets and said I/O controller monitors the
5 status of said bus and generates said statistical information.

1 12. The statistics reporting process of claim 11 further
2 comprising a control information write process for receiving
3 control information which specifies a storage location where
4 each said data packet is to be stored and storing said control
5 information on said storage device.

1 13. The statistics reporting process of claim 12 further
2 comprising a device driver process for generating said control
3 information and providing it to said control information write
4 process.

1 14. The statistics reporting process of claim 13 further
2 comprising a packet write process for storing each said data
3 packet on said storage device at said storage location
4 specified by said control information.

1 15. The statistics reporting process of claim 14 further
2 comprising:

3 a first communication bus for interfacing said
4 device driver process and said statistics reporting
5 process;

6 wherein said device driver process provides said
7 control information to said control information write
8 process via said first communication bus.

1 16. The statistics reporting process of claim 15 wherein said
2 device driver process includes a packet retrieval process for
3 retrieving said data packets stored on said storage device via
4 said first communication bus.

1 17. The statistics reporting process of claim 15 wherein said
2 device driver process includes a status retrieval process for
3 retrieving said status information stored on said storage
4 device via said first communication bus.

1 18. The statistics reporting process of claim 14 further
2 comprising a second communication bus for interfacing said I/O
3 controller and said statistics reporting process.

1 19. The statistics reporting process of claim 18 wherein said
2 I/O controller includes a statistical information transmission
3 process for providing said statistical information to said
4 statistics information process via said second communication
5 bus.

1 20. The statistics reporting process of claim 18 wherein said
2 I/O controller includes a data transmission process for
3 providing said data packets to said packet write process via
4 said second communication bus.

1 21. The statistics reporting process of claim 18 wherein said
2 I/O controller includes a status transmission process for
3 monitoring said data packets, generating said status
4 information concerning the size and condition of said data
5 packets, and providing said status information to said status
6 information process via said second communication bus.

1 22. The statistics reporting process of claim 10 wherein said
2 storage device is a system memory.

1 23. The statistics reporting process of claim 22 wherein said
2 system memory includes a Read Only Memory (ROM) and said
3 statistics reporting process resides on said ROM.

1 24. The statistics reporting process of claim 10 wherein said
2 storage device includes a dedicated memory area for storing

3 said statistical information, said control information, and
4 said status information.

1 25. The statistics reporting process of claim 24 wherein said
2 dedicated memory area includes:

3 a control information storage area for contiguously
4 storing said control information, and

5 a status/statistical information storage area for
6 contiguously storing said status information and said
7 statistical information;

8 wherein said unified write process stores said
9 status information and said statistical information using
10 a single write procedure.

1 26. A computer program product residing on a computer
2 readable medium having a plurality of instructions stored
3 thereon which, when executed by the processor, cause that
4 processor to:

5 receive status information concerning the size and
6 location of the individual data packets;

7 receive statistical information concerning various bus
8 conditions; and

9 store the status information and the statistical
10 information on a storage device using a single write
11 procedure.

1 27. The computer program product of claim 26 wherein said
2 computer readable medium is a read-only memory.

- 1 28. A statistics reporting system comprising:
- 2 an Input/Output (I/O) controller connected to a
3 distributed computing network; wherein said I/O
4 controller receives data packets from said network,
5 monitors the status of said network and generates
6 statistical information concerning said network's
7 condition;
- 8 a statistics reporting process comprising:
- 9 a status information process for receiving
10 status information concerning a data packet;
- 11 a statistics information process for receiving
12 said statistical information; and
- 13 a unified write process for storing said status
14 information and said statistical information on a
15 storage device using a single write procedure; and
- 16 a central processing unit (CPU) for executing said
17 statistics reporting process which resides on a Read Only
18 Memory.
- 1 29. The statistics reporting system of claim 28 wherein said
2 statistics reporting process further includes:
- 3 a control information write process for receiving
4 control information which specifies a storage location
5 where each said data packet is to be stored and storing
6 said control information on said storage device; and

7 a device driver process for generating said control
8 information and providing it to said control information
9 write process.

1 30. The statistics reporting system of claim 29 further
2 comprising:

3 a first communication bus for interfacing said
4 device driver process and said statistics reporting
5 process; and

6 a second communication bus for interfacing said I/O
7 controller and said statistics reporting process.